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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/807,871

03/24/2004

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STL919990184US3

5489

45729 7590 08/17/2010

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EXAMINER

NGUYEN, CINDY

ART UNIT

PAPER NUMBER

2161

MAIL DATE

DELIVERY MODE

08/17/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

This is response to amendment filed 05/24/2010.

Response to Arguments

Applicant's arguments have been fully considered but they are not persuasive. Applicant argued that the Chaudhuri reference does not teach or suggest the steps or elements of the independent claims comprising: "using statistics on one or more expressions of one or more pre-defined queries to determine an optimal query execution plan for the query". Examiner disagrees, Chaudhuri discloses: Database server 220 comprises a query optimizer 224 to generate efficient execution plans for queries with respect to a set of indexes. In generating execution plans, query optimizer 224 relies on statistics on column(s) of table(s) referenced in a query to estimate, for example, the cost in time to execute the query against the database 210 using more than one possible execution plan for the query. Query optimizer 224 may then choose among possible execution plans for the query" (col. 6, lines 30-40). The claim just requires having using statistics on at least one already defined query with at least one expression to determine an optimal query execution plan. Chaudhuri teaches a method identifies statistics for use in executing one or more queries against a database (col. 2, lines 14-15) this implies that these queries already exist along with the statistics for these queries. Therefore these queries are already defined i.e., predefined). Hence, Chaudhuri teaches the same all the limitations of Applicant's claim invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 12, 13, 23 and 24 stand rejected under 35 U.S.C. 102(e) as being anticipated by Chaudhuri et al. (US 6363371, hereafter Chaudhuri).

Regarding claims 1, 12 and 23, Chaudhuri discloses: A method, an apparatus, an article of manufacture for optimizing execution of a query that accesses data stored on a data store connected to a computer (see col. 2, lines 59 to col. 3, lines 12; col. 4, lines 57-62), comprising:

using statistics on one or more expressions of one or more pre-defined queries to determine an optimal query execution plan for the query (*i.e.*, "A method identifies statistics for use in executing one or more queries against a database" (col. 2, lines 14-15) this implies that these queries already exist along with the statistics for these queries. Therefore these queries are already defined *i.e.*, predefined);

executing the optimal query execution plan for the query in order to access the data stored on data Store connected to a computer and then output the accessed data (*i.e.*, "Suitable SQL queries include, .[or example, Select, Insert, Delete, and Update statements." Col. 6, lines 25-27. The queries consist of expressions or statements and some queries may

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just contain one expression or statement. The claim just requires having using statistics on at least one already defined query with at least one expression to determine an optimal query execution plan. *"Database server 220 comprises a query optimizer 224 to generate efficient execution plans for queries with respect to a set of indexes. In generating execution plans, query optimizer 224 relies on statistics on column(s) of table(s) referenced in a query to estimate, for example, the cost in time to execute the query against the database 210 using more than one possible execution plan for the query. Query optimizer 224 may then choose among possible execution plans for the query"* (col. 6, lines 30-40) The preceding excerpts indicates/implies that database server determines the most efficient execution plan for a particular query among many efficient execution plans based on some statistical data. The query optimizer relies on statistics on a query i.e. the cost to access the columns or tables referenced in the query expression/statement. Query execution plan is a plan to execute the query i.e., a plan to access data from a data source e.g., table etc. Therefore the referenced data sources (e.g., tables or columns of tables) in the query expression are the most essential part of the query expression/statement. There are costs associated with each execution plan. The statistics comprises data about cost to access columns of tables referenced in a query by various execution plans for the query. All execution plans for a particular query include paths to access the same data from the same data sources referenced in the query, because the query requires accessing particular data from particular data sources. However each execution plan has different way of accessing the same data and thus has different cost. Based on statistical data about cost and other related data, the optimizer picks the most optimum execution plan. The result of any query execution plan is the output of the query).

Regarding claims 2, 13, 24, Chaudhuri discloses: wherein each of the pre-defined queries is associated with an automatic summary table, a materialized view or a view (i.e., statistic is a summary structure/table associate with a set of one or more columns in a relation and is a histogram... see col. 6, lines 48-60).

Allowable Subject Matter

Claims 3, 14, 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 4-11, 15-22, 26-33, which depended on claims 3, 14 and 25, therefore they are objectable.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CINDY NGUYEN whose telephone number is (571)272-4025. The examiner can normally be reached on 8:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu Mofiz can be reached on 571-272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. N./

Examiner, Art Unit 2161

/A Oberley/
Primary Examiner, Art Unit 2100